Malaria Action Coalition

Year 3 Annual Progress Report, October 2004–September 2005

Management Sciences for Health
is a nonprofit organization
strengthening health programs worldwide.

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Access to Clinical and Community Maternal, Neonatal and Women's Health Services Program/JHPIEGO

U.S. Centers for Disease Control and Prevention

World Health Organization

MSH
MANAGEMENT SCIENCES for HEALTH
RPM Plus | Rational Pharmaceutical Management Plus

Maternal & Neonatal Health

CDC
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About RPM Plus

RPM Plus works in more than 20 developing and transitional countries to provide technical assistance to strengthen medicine and health commodity management systems. The program offers technical guidance and assists in strategy development and program implementation both in improving the availability of health commodities—pharmaceuticals, vaccines, supplies, and basic medical equipment—of assured quality for maternal and child health, HIV/AIDS, infectious diseases, and family planning and in promoting the appropriate use of health commodities in the public and private sectors.

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CONTENTS

ACRONYMS AND ABBREVIATIONS

ACCESS	Access to Clinical and Community Maternal, Neonatal and Women's Health Services (Program) [USAID-funded program]
ACT	artemisinin-based combination therapy
AED	Academy for Educational Development
AFRO	Regional Office for Africa [WHO]
ANC	antenatal clinic
BGH	Bureau for Global Health [USAID]
BIMI	Blantyre Integrated Malaria Initiative [Malawi]
CANMAT	Central African Network for Monitoring Antimalarial Treatment
CCM	country-coordinating mechanism [Global Fund]
CDC	U.S. Centers for Disease Control and Prevention
DOMC	Division of Malaria Control [Kenya]
DRC	Democratic Republic of the Congo
EARN	Eastern Africa RBM Network
ESA	East and Southern Africa [WHO]
FANC	focused antenatal care
FY	fiscal year
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
HANMAT	Horn of Africa Network for Monitoring Antimalarial Treatment
HQ	Headquarters [WHO Geneva]
IMCI	Integrated Management of Childhood Illness
IPT	intermittent preventive treatment
IR	intermediate result [USAID]
ITN	insecticide-treated net
KEMRI	Kenya Medical Research Institute
LAC	Latin America and Caribbean
M&E	monitoring and evaluation
MAC	Malaria Action Coalition
MCMWG	Malaria Case Management Working Group
MIP	malaria in pregnancy
MIPESA	Malaria in Pregnancy East and Southern Africa [Coalition]
MoH	Ministry of Health
MoH/FP	Ministry of Health and Family Planning [Madagascar]

MPWG	Malaria in Pregnancy Working Group [RBM]
MSH	Management Sciences for Health
NMCP	National Malaria Control Program
PMI	President's Malaria Initiative
PMTCT	prevention of mother-to-child transmission
PSM	Procurement and Supply Plan [Global Fund]
RAOPAG	Réseau d'Afrique de l'Ouest sur le Paludisme pendant la Grossesse (West Africa Network for Malaria during Pregnancy)
RBM	Roll Back Malaria (Partnership)
RCQHC	Regional Center for Quality of Health Care [Uganda]
RDT	rapid diagnostic test
REDSO	Regional Economic Development Services Office [USAID]
RPM Plus	Rational Pharmaceutical Management Plus (Program)
SBM	Standard-Based Management (tool)
SO	strategic objective [USAID]
SP	sulfadoxine/pyrimethamine
TRP	Technical Review Panel [GFATM]
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
WANMAT	West African Network for Monitoring Antimalarial Treatment
WARN	Western Africa RBM Network
WARP	West Africa Regional Program [USAID]
WHO	World Health Organization

EXECUTIVE SUMMARY

Worldwide, an estimated 300 to 500 million cases of malaria occur every year, resulting in as many as 2.5 million deaths, mostly among young children. About 80 percent of all malaria deaths occur in sub-Saharan Africa. The Roll Back Malaria (RBM) Partnership works to support implementation of country-level programs aimed at achieving the malaria control targets defined in the Abuja Declaration, which were set by African heads of state in Abuja during the 2000 African Summit on Roll Back Malaria. The U.S. Agency for International Development (USAID) organized its funding to facilitate coordination and joint planning of the RBM partners, and established the Malaria Action Coalition (MAC) in 2002 to contribute to the attainment of the Abuja targets and RBM goals for the prevention, treatment, and control of malaria in Africa.

MAC is composed of four primary technical partners: the World Health Organization (WHO), the U.S. Centers for Disease Control and Prevention (CDC), and two USAID-funded programs—the Management Sciences for Health (MSH) Rational Pharmaceutical Management (RPM) Plus Program and the consortium Access to Clinical and Community Maternal, Neonatal and Women's Health Services Program (ACCESS). MAC supports RBM and coordinates with national governments, subregional networks, the private sector, and other RBM partners to provide technical support for RBM goals related to the attainment of two African Summits on RBM targets—

- That "at least 60 percent of those suffering from malaria have prompt access to and are able to use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms"

- That "at least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment"[1] (intermittent preventive treatment [IPT])

Because of progress made in adopting new malaria control and treatment policies in many African countries since its inception, MAC was reoriented in 2004 to better focus technical assistance to achieve Abuja targets. This reorientation involved separating the two MAC focus areas—malaria treatment/case management and prevention of malaria in pregnancy (MIP). Specifically, the partners working within the two areas are now more independent in terms of workplans and budgets, and in conducting and reporting their activities. ACCESS, CDC, and WHO provide technical expertise on MIP issues, while the CDC, RPM Plus, and WHO work in concert to provide technical expertise on malaria case management.

During Year 3, MAC partners have continued to work with national governments, malaria control programs, and subregional networks to strengthen local capacity to implement malaria control and prevention programs. MAC partners provided support to more than 25 countries in sub-Saharan Africa through USAID core and field support funds. Technical assistance was

[1] World Health Organization. 2000. *The Abuja Declaration and the Plan of Action: An Extract from The African Summit on Roll Back Malaria, Abuja, 25 April 2000* (WHO/CDS/RBM/2000.17). WHO: Geneva. <http://www.rbm.who.int/docs/abuja_declaration_final.htm> (accessed February 22, 2006)

provided directly to national governments or through subregional networks and other RBM partners. MAC partners assisted in the implementation and scale-up of IPT programs in numerous countries to reduce the effect of MIP. MAC partners also assisted countries in adopting new malaria control policies and helped others plan for and begin strengthening systems needed for an effective transition to and implementation of artemisinin-based combination therapies (ACTs). In countries where MAC partners receive field support from USAID Missions, they worked with in-country partners to strengthen and advance national malaria control program strategies.

INTRODUCTION AND BACKGROUND

The mission of the RBM Partnership today is to work toward implementing more responsive, country-level programs in pursuance of the targets for malaria control set by African heads of state in Abuja in 2000. To this end, the partnership has developed stronger mechanisms for coordinating technical and financial support to intercountry teams.

USAID, which organized its funding to facilitate coordination and joint planning among the RBM partners, established MAC in 2002 to help attain the Abuja targets and RBM goals for the prevention, treatment, and control of malaria in Africa.

Malaria Situation in Africa, the Abuja Targets, and RBM

Worldwide, an estimated 300 to 500 million cases of malaria occur every year, causing up to 2.5 million deaths, about 80 percent of them in sub-Saharan Africa. In areas of stable malaria transmission, very young children and pregnant women are the population groups at highest risk for malaria morbidity and mortality.[2] Most children experience their first malaria infections during the first two years of life when they have not yet acquired adequate clinical immunity. This makes these early years particularly dangerous because 90 percent of all malaria deaths in Africa occur among young children. Adult women in areas of stable transmission typically have a high level of immunity, but immunity is impaired during pregnancy, especially a first pregnancy, and the risk of malaria infection is elevated. Placental malaria infection can result in low-birth weight infants and preterm delivery.

Not only does stable transmission of malaria in sub-Saharan Africa result in high morbidity and mortality, but it also places a heavy burden on already encumbered health systems and negatively impacts human productivity. Poor people shoulder an undue burden as they are at greater and more frequent risk of infection with the malaria parasite.

In 1998, the RBM Partnership was launched by WHO, the United Nations Children's Fund (UNICEF), the United Nations Development Programme (UNDP), and the World Bank to provide a coordinated global approach to fighting malaria. The RBM Partnership's goal is to halve the burden of malaria by 2010. RBM partners are working together to scale up malaria control efforts at the country level by coordinating their activities to avoid duplication and fragmentation and to ensure optimal use of resources.

In April 2000, African heads of state met in an historic summit in Abuja, Nigeria, to express their personal commitment to tackling malaria and to establish targets for implementing the technical strategies needed to effect the goals of RBM.[3] The African Summit on RBM reflected a real

[2] World Health Organization (WHO)/United Nations Children's Fund (UNICEF). 2003. *Africa Malaria Report 2003*. WHO/CDS/MAL/2003.1093. Geneva: WHO/UNICEF.
[3] Roll Back Malaria (RBM) Partnership Secretariat and World Health Organization (WHO). 2000. *The Abuja Declaration and the Plan of Action: An Extract from the African Summit on Roll Back Malaria, Abuja, 25 April 2000*. WHO/CDS/RBM/2000.17. Geneva: RBM Partnership Secretariat and WHO.

convergence of political momentum, institutional synergy, and technical consensus on malaria. Representatives of 44 of the 50 malaria-affected countries in Africa attended the summit. The heads of state and other delegates reviewed evidence, debated options, and ratified an action-oriented declaration with strong provisions for follow-up.

The leaders resolved to "initiate appropriate and sustainable action to strengthen the health systems to ensure that by the year 2005—

- At least 60 percent of those suffering from malaria have prompt access to and are able to use correct, affordable and appropriate treatment within 24 hours of the onset of symptoms.

- At least 60 percent of those at risk of malaria, particularly pregnant women and children under five years of age, benefit from the most suitable combination of personal and community protective measures such as insecticide-treated mosquito nets and other interventions which are accessible and affordable to prevent infection and suffering.

- At least 60 percent of all pregnant women who are at risk of malaria, especially those in their first pregnancies, have access to chemoprophylaxis or presumptive intermittent treatment."[4]

Malaria Action Coalition

MAC is composed of four primary technical partners: WHO's Regional Office for Africa (WHO/AFRO), the CDC, and two USAID-funded programs—the RPM Plus Program and the ACCESS Program. MAC functions as an integral part of the RBM Partnership for Africa—responding to developments in that partnership and coordinating its actions as appropriate with other partners. MAC works with USAID Missions, national governments, subregional networks, and private sector partners in Africa to strengthen malaria prevention and control strategies. MAC also coordinates with other RBM partners to provide technical support toward attaining RBM goals as related to two of the Abuja Declaration targets—a focus on access to prompt and effective treatment and access of pregnant women to IPT.

MAC works with governments and private sector partners to design malaria prevention and control programs, and provides technical support to implement interventions and activities that strengthen health systems for malaria control and prevention. In particular, MAC provides coordinated and focused expertise to strengthen maternal and child health services, pharmaceutical management systems, and medicine monitoring and surveillance services. ACCESS, the CDC and WHO provide technical expertise on MIP-related issues, while the CDC, RPM Plus, and WHO work in concert to provide technical expertise on malaria case management.

[4] World Health Organization. 2000. *The Abuja Declaration and the Plan of Action: An Extract from the African Summit on Roll Back Malaria, Abuja, 25 April 2000* (WHO/CDS/RBM/2000.17). WHO: Geneva. <http://www.rbm.who.int/docs/abuja_declaration_final.htm> (accessed February 22, 2006)

In the last several years, many malaria-endemic African nations have moved to adopt more effective malaria treatment policies and policies for preventing MIP. This movement has primarily been in response to increasing resistance of the malaria parasite to chloroquine. MAC partners have provided technical support to assist these countries in the policy change process. During Year 3, MAC partners have focused on helping countries begin implementing their new treatment and MIP policies. MAC partners provide technical assistance and support systems strengthening through strategic framework development, epidemiology and operations research, policy dialogue, pharmaceutical management and regulation, medicines use and practices, communication/behavior change, performance improvement, monitoring and evaluation (M&E), and the implementation of pilot interventions.

M&E Results Framework

USAID/Washington has authorized MAC for a period of five years (2002–2007). MAC focuses on Africa as a target region and supports both RBM strategies and approaches and the Abuja Declaration. MAC's strategic objective is strengthened health systems for the appropriate management of malaria.

MAC's strategic objective supports USAID/Bureau for Global Health (BGH) Strategic Objective 5 (SO5), "Increased use of effective interventions to reduce the threat of infectious diseases of major public health importance"; SO3, "Increased use of key child health and nutrition interventions"; and SO2, "Increased use of key maternal health and nutrition interventions." MAC's Intermediate Results (IRs) feed directly into achieving the SOs, and the activities under each IR emphasize treatment of children under the age of five and the management and control of MIP. The four IRs are—

IR 1. Appropriate Policies in Place for the Treatment of Malaria and the Control of MIP

IR 2. Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

IR 3. Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

IR 4. Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

MAC YEAR 3 PROGRESS: CASE MANAGEMENT

IR 1. Appropriate Policies in Place for the Treatment of Malaria and the Control of MIP

Core-Funded Regional- and Subregional-Level Support

- The CDC provided support to two RBM/WHO working groups, the Malaria Case Management Working Group (MCMWG) and the Monitoring and Evaluation Reference Group, to ensure expert technical review and recommendations on related issues. During fiscal year (FY) 2004, the CDC developed draft recommendations on the use of rapid diagnostic tests (RDTs) and shared these with the MCMWG.

- The CDC continued to provide technical support to the Secretariat of the newly formed Horn of Africa Network for Monitoring Antimalarial Treatment (HANMAT).

- The CDC held a two-day workshop in January 2005 to continue development of CDCynergy, a multimedia CD-ROM for use in planning, managing, and evaluating public health communication programs. MAC partners at the CDC shared the draft and two program installation "wizards" with WHO/AFRO colleagues at the spring MAC meeting in Harare, Zimbabwe.

- In collaboration with WHO, the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM), and RBM partners, RPM Plus developed an implementation guide and checklist for countries adopting a new malaria treatment policy using ACTs for first-line treatment.

- RPM Plus participated in global and regional malaria meetings, providing technical input on pharmaceutical management issues for malaria and sharing the newly developed ACT implementation guide and checklist. Several countries used these tools in effecting malaria treatment policy change. The guide and checklist have been presented to countries in the USAID Asia and Near East and Latin America and the Caribbean regions, and are being translated into Spanish to allow their easy use in LAC. Dissemination of the ACT implementation guide and checklist will be expanded following a presentation on the tools at the 2006 International Conference on Global Health, sponsored by the Global Health Council.

- RPM Plus also provided input on documents produced by other RBM partners, including the RBM MCMWG position papers on ACTs, a Department for International Development (DFID) strategy paper, Child Survival Collaborations and Resources Group documents on malaria, a WHO paper on costing tools, and the USAID artemisinin agriculture paper.

- WHO/AFRO, in collaboration with the RBM Department in Geneva, finalized the WHO malaria treatment guidelines (September 2005 version).

- In collaboration with the RBM Department and WHO's Regional Office for the Western Pacific, WHO/AFRO prepared *Interim Notes on Selection of Type of Malaria Rapid*

Diagnostic Test in Relation to the Occurrence of Different Parasite Species (August 2005)[5] for use by national malaria control programs (NMCPs) in guiding decisions about procuring RDTs and improving disease management, with potential savings in health resources.

- In response to the problem of antimalarial drug resistance, WHO/AFRO provided technical and financial support to the four subregional technical networks for monitoring antimalarial treatment in West and Central Africa: the Central African Network for Monitoring Antimalarial Treatment (CANMAT), the West Africa Network prevention of mother-to-child transmission for Monitoring Antimalarial Treatment 1 and 2 (WANMAT 1 and WANMAT 2), and HANMAT. During annual network meetings, WHO (AFRO and Geneva), assisted NMCP members in choosing appropriate sentinel sites and to train staff on their updated drug efficacy monitoring protocol and data analysis using its Excel-based tool. Each network and country member developed strategic plans and annual workplans. WHO/AFRO used MAC core funds to support the essential functions of the networks defined in their workplans. Network activities have included–

  - Conducting therapeutic efficacy tests, which were subsequently used to update antimalarial policies in 14 countries (Angola, Burkina Faso, Chad, Cote d'Ivoire, Democratic Republic of Congo [DRC], Guinea Bissau, Mali, Niger, Rwanda, Senegal, Tanzania, Togo, and Uganda).

  - Designing network websites (www.raotap1.org; www.raotap2.org; www.ractap.org; www.hanmat.org) and publishing periodical newsletters.

  - WANMAT 1 developed a medicines quality control manual, undertook a training on the use of molecular biology for pharmaceutical efficacy monitoring (Dakar, March 2005), and supported a workshop in Guinea Bissau on pharmaceutical efficacy data analysis.

  - WANMAT 2 developed and adapted a protocol for pharmaceutical efficacy monitoring, a manual of quality assurance, and a field manual for sentinel sites, and organized a workshop on quality assurance for antimalarial drug efficacy monitoring (Accra, June 2005).

- WHO/AFRO, in collaboration with WHO/HQ, updated the database of antimalarial drug efficacy results expressed as treatment failure, by country from 1996 to 2004, to meet the new WHO definition of drug resistance.

Core-Funded Country-Level Support

- In addition to continued technical support to the DRC NMCP for treatment policy change, the CDC provided support for developing and implementing pharmaceutical efficacy studies in Eastern Congo and Kinshasa. To date, two studies have been completed; the third was to

[5] Roll Back Malaria Department/World Health Organization, in collaboration with the Regional Offices for Africa and the Western Pacific. 2005. *Interim Notes on Selection of Type of Malaria Rapid Diagnostic Test in Relation to the Occurrence of Different Parasite Species*: Guidance for National Malaria Control Programmes. Geneva: WHO. <http://www.who.int/malaria/docs/interimnotesRDTS.pdf> (accessed February 22, 2006)

be completed by November 2005. The ongoing technical support to the NMCP helped ensure a successful experts' meeting on drug policy in February and a follow-up national consensus meeting in March, with WHO/HQ and WHO country office participation. MAC technical support and these meetings led to the adoption of amodiaquine/artesunate as the new first-line drug for treatment of uncomplicated malaria. The MAC/CDC-funded pharmaceutical efficacy studies will help the NMCP understand the current status of resistance to the chosen ACT and alternatives.

IR 2: Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

Core-Funded Regional- and Subregional-Level Support

- During FY 2004, RPM Plus revised and finalized the Pharmaceutical Management for Malaria training course based on feedback from the field test that was conducted in Peru at the end of FY 2003. RPM Plus has also begun planning for a regional training to be held in Tanzania for 30 participants from 10 East and Central African countries.

- RPM Plus designed a malaria quantification training course to develop malaria-endemic countries' expertise in adequately estimating pharmaceutical needs for ACT introduction and scale-up. Sixteen African francophone and anglophone countries have now at least two Ministry of Health (MoH) persons (NMCP and Central Medical Store) who are competent as trainers in malaria quantification. The topic generated great interest, and follow-up visits have been requested by several country partners.

- During FY 2004, RPM Plus began developing a malaria chapter for the Quantimed tool that RPM Plus created to assist countries in quantifying their pharmaceutical needs. The malaria chapter focuses specifically on quantification of antimalarials and related issues.

- WHO/AFRO provided technical support during a workshop in the DRC on ACT quantification based on the morbidity method. The estimation of needs was adjusted based on expected malaria case management coverage at heath facilities and through community health workers. Participants established an ACT procurement plan for each province.

- WHO/AFRO led the process for revising and finalizing case management guidelines and training 36 trainers in Madagascar.

- WHO/AFRO led the process of adapting malaria case management guidelines in Mali.

Core-Funded Country-Level Support

- To support GFATM recipient countries in ACT implementation, RPM Plus, the CDC (Ethiopia only), and WHO/AFRO participated in MAC case management scoping visits in Benin, Ethiopia, Burundi, and Senegal. Jointly with RBM country partners and in coordination with the subregional networks (Eastern Africa RBM Network—EARN,

Western Africa RBM Network—WARN), the assessment teams identified gaps in ACT implementation and related technical assistance needs. RPM Plus agreed with partners on the provision of pharmaceutical management technical assistance for ACT implementation and programmed the related activities with the 2006 MAC core funds (FY 2005 funds). Following the mission to Senegal, WHO/AFRO assisted the country with developing an ACT implementation plan, based on *Changing Malaria Treatment Policy to ACT: An Implementation Guide* (2005), developed jointly by RPM Plus, WHO, and RBM. An intensified phase (2006–2007) of scaling up ACT access at public and private health facilities was planned to be followed by a consolidation phase (2008–2010) of strengthening home-based case management. Two components—technical (rational use of ACTs, regulation) and operational (quantification, procurement, distribution, quality assurance, pharmacovigilance, M&E)—were developed for the two phases during a multidisciplinary workshop. For Benin, WHO/AFRO contributed to finalizing the Integrated Management of Childhood Illness (IMCI)/malaria case management guidelines to support the implementation of the new ACT policy.

- Through a cooperative agreement with the University of California at San Francisco, the CDC is providing technical support to evaluate pharmacovigilance in Uganda, including the implementation of a pilot pharmocovigilance system. It is expected that this evaluation will complement ongoing work in Tanzania and will help to inform East African malaria programs on issues related to ACT and pharmacovigilance.

- In Kenya and Tanzania, the CDC helped both the ministries of health (MoH) and other country partners to develop protocols to evaluate RDTs. Both protocols have been approved. The Tanzania protocol was implemented in March–April 2005, and Kenya protocol implementation is planned for April 2006. The Kenya study was postponed as a result of delayed ACT procurement. These studies will evaluate the potential impact of RDTs on improving malaria case management and will support country efforts to strengthen the rational use of antimalarial medicines. Kenya plans to implement its new ACT-based policy using Coartem® as the first-line treatment for uncomplicated malaria, early in 2006; the Kenya evaluation will assist the Kenyan Division of Malaria Control (DOMC) in decision making related to improved diagnosis of malaria and rational use of ACTs. The CDC's partners in the study include the DOMC, Kenya Medical Research Institute (KEMRI), and the Wellcome Trust. Tanzania is preparing to change policy and the CDC study is a pilot that will be used by the MoH to guide a larger evaluation in 2005 to be supported by GFATM.

- The RPM Plus rapid assessment in Nigeria showed that all areas of the pharmaceutical management cycle need to be strengthened. Findings were disseminated through a seminar organized with the NMCP of the Federal MoH. A consensus on the pharmaceutical management recommendations to ensure smooth implementation of ACT policy was obtained, with support from 36 malaria and pharmaceutical management state representatives, the Federal MoH, the RBM Unit, pharmaceutical sector stakeholders, and donors.

- RPM Plus assessed the antimalarial medicines supply chain in Kenya and disseminated the results through the Drug Policy Technical Working Group meeting held in January 2005. Major findings included insufficient funding planned for medicine procurement, lack of data

on malaria commodity needs, poor stock records, inadequate quantities of antimalarials in storage, an unreliable pharmaceutical distribution system, and inappropriate prescribing. The assessment findings are being used to guide the development of the pharmaceutical supply management component of a USAID/Kenya FY 2006–funded Malaria Information Acquisition System. With RPM Plus support, the DOMC has already developed and disseminated standard treatment guidelines (STGs) for malaria.

- WHO/HQ and AFRO provided technical support to develop guidelines on malaria case management in Kenya.

- WHO/AFRO assessed the malaria pharmacovigilance system in Zambia. A protocol for pharmaceutical safety monitoring was developed along with a reporting form that was developed, adopted, and distributed during training. Some reports have been received through the NMCP but the Zambia Pharmacovigilance Centre was not yet able to process them.

- In Zanzibar, WHO/AFRO organized a three-day hands-on refresher course for facilitators of local pharmacovigilance trainings, with participants working with data from case reports.

- WHO/AFRO provided technical assistance to develop a "micro" plan in one Burundi province to serve as the first step in a capacity-development process aimed at allowing the country to scale up malaria interventions in the context of IMCI.

WHO/AFRO conducted health facility surveys in Rwanda, Zambia, and Zanzibar in 2004 and in Burundi and Eritrea in 2005 to evaluate the impact of ACT availability on the use of health services utilization. The percentage of health facilities found to have no stock-outs of the recommended first-line drug for one week in the previous three months was 71.8 percent for Zambia, 92 percent for Zanzibar, 88.5 percent for Rwanda, 63 percent for Burundi, and 98 percent for Eritrea. The percentage of health workers trained in malaria case management ranged from 28 percent in Eritrea to 66 percent in Zanzibar. The correct prescription of the first-line antimalarial by health workers ranged from 26.6 percent in Zambia to 88.9 percent in Zanzibar.

IR 3: Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

Core-Funded Regional- and Subregional-Level Support

- To estimate the impact of ACT on public health facility use, RPM Plus has modified its community malaria drug management tool to collect data on health-seeking behavior for malaria at the household level, in the context of uninterrupted availability and supply of ACTs. The household information will be triangulated with data from the surrounding facilities.

- As an RPM Plus subcontractor, and to develop standards for packaging and labeling of medicines, the Academy for Educational Development (AED) reviewed the available literature on adherence to malaria treatment regimens and completed a protocol to assess

users' reaction to different packaging and labeling. Kenya has been selected as the research country, and a local investigator has been identified.

- As a subcontractor to RPM Plus, AED is developing communication guidelines for NMCPs on malaria prevention and treatment. An initial set of materials has been completed for review by two technical experts and a protocol developed for post-testing the communications package.

- AED also worked with the Special Program for Research and Training in Tropical Diseases/WHO to review the protocols for community-based treatment research developed by 15 applicants, and participated in training African researchers to strengthen protocol development for such research. As a result, several applicants have been awarded funding and started their research.

IR 4: Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

Core-Funded Country-Level Support

- RPM Plus provided technical assistance focused on pharmaceutical management to Benin, Ghana, and Kenya for the malaria components of their applications to the GFATM.

- To help them prepare for the GFATM reprogramming meeting, Ethiopia, Kenya, Madagascar, Rwanda, and Senegal received RPM Plus support for developing of malaria Procurement and Supply Plans (PSMs). At the same time, GFATM benefited from RPM Plus technical assistance in organizing the reprogramming meeting in Nairobi. In July 2005, RPM Plus held a follow-up meeting with the GFATM in Geneva to build on lessons learned and plan PSM planning and implementation assistance for GFATM recipient countries.

- WHO/AFRO supported Burundi, Côte d'Ivoire, the DRC, and Niger in developing their GFATM Round 5 proposals, primarily to support ACT funding. Niger's proposal was deemed eligible for funding in Category 2. WHO/AFRO, in collaboration with WHO/HQ, continued to support Niger's country-coordinating mechanism (CCM) and NMCP, helping them to respond to remarks of the GFATM Technical Review Panel (TRP).

- WHO/AFRO, along with RPM Plus, supported Senegal in developing its PSM, M&E plan, and first-year implementation plans, enabling the country to win GFATM signature approval for a Round 4 grant. The grant agreement was signed in June 2005, and implementation started on July 2005. WHO/AFRO continued to coordinate with WHO/HQ to follow up on order and delivery of ACT medicines for Senegal.

MAC YEAR 3 PROGRESS: MALARIA IN PREGNANCY

IR 1: Appropriate Policies for the Treatment of Malaria and the Control of MIP in Place

Core-Funded Regional- and Subregional-Level Support

- The CDC supported the development and distribution of the second issue of the *Malaria in Pregnancy East and Southern Africa: Coalition for Prevention and Control (MIPESA)* Newsletter. ACCESS was the lead on an article, "Advocacy and Focused Antenatal Care Efforts Strengthened," for the newsletter.

- ACCESS provided technical support to the MIPESA Coalition. MIPESA continues to support intercountry exchange of documented best practices and lessons learned to accelerate the scale-up of the prevention and control of malaria during pregnancy. ACCESS and WHO/AFRO also helped plan and participated in the MIPESA Steering Committee meetings and the Annual General Meeting during Year 3.

- ACCESS, WHO/AFRO, and WHO/HQ provided core support for MIPESA documentation of regional best practices and lessons learned; this report, which supports the mandate of the regional coalition, was expected to be finalized in the first quarter of FY 2005. Sharing this information is extremely relevant as more countries adopt the WHO three-prong strategy for prevention and control of MIP; this document becomes an important reference for implementation. This activity was co-funded through ACCESS REDSO field support funds.

- As Secretariat for the RBM Malaria in Pregnancy Working Group (MPWG)**,** JHPIEGO provides technical representation through the ACCESS Clinical Director. JHPIEGO has helped to coordinate the working group's efforts and mandate in this past year, leading to better awareness of key issues affecting the implementation of MIP; specifically, the interaction between malaria and HIV, the effect of this co-infection on pregnant women, and growing resistance to the antimalarial drug sulfadoxine/pyrimethamine (SP). The CDC has also continued to participate in and provide technical support to the MPWG to ensure expert technical review and recommendations are made on MIP issues. WHO/AFRO also participated in the MPWG meeting. A draft workplan (MPWG October 2004–September 2005) was developed to support RBM efforts to scale up programs for the prevention and control of malaria during pregnancy.

- WHO/AFRO's Malaria unit is leading the development of an article series focusing on malaria and the newborn. This article is being developed in collaboration with UNICEF and WHO/AFRO's Reproductive Heath Division with support from ACCESS.

- JHPIEGO is a member of the EARN Steering Committee; in this role, JHPIEGO provides technical guidance and support to EARN and coordinates its activities in collaboration with other steering committee members. MAC partners make an important contribution in East and Southern Africa to support country priorities. For example, some MAC activities directly

support the EARN workplan activities. These have included increased support for the prevention and control of MIP in Rwanda and Kenya.

- ACCESS provided technical support to the Secretariat of the West Africa Network for Malaria during Pregnancy (Réseau d'Afrique de l'Ouest sur le Paludisme pendant la Grossesse [RAOPAG]). RAOPAG serves as a forum for the exchange of MIP information among member countries and is a catalyst for policy change at the national level. ACCESS contributed technical assistance to the development of RAOPAG's proposal to the GFATM, but the proposals was not funded because of difficulty in obtaining CCM signatures from all member countries. The ACCESS technical consultant prepared a draft RAOPAG brochure to assist with marketing the network to a wider audience of potential donors.

- The ACCESS technical consultant, with support from WHO/AFRO and WHO/HQ, coordinated with the network's Secretariat to plan, organize, and facilitate the RAOPAG annual partner meeting and workshop on MIP tools and resources. Participants came from Benin, Burkina Faso, Côte d'Ivoire, Guinea, Mali, Niger, Nigeria, Senegal, and Togo.

Core-Funded Country-Level Support

- The CDC provided technical support to the Burkina Faso NMCP on the evaluation of the IPT with SP pilot program and assisted with the data analysis. Additionally, the CDC provided technical expertise during the national drug policy consensus and MIP policy meeting in February 2005.

- The CDC and ACCESS/JHIEPGO collaborated to provide technical support to the NMCP in Burkina Faso to complete a follow-up survey of the IPT with SP pilot, and assisted with the data analysis. Preliminary evaluation data indicate that, in the target district, more than 96 percent of women seen at the antenatal clinic (ANC) received one or more doses of SP and more than 93 percent of women seen at the delivery unit received one or more doses of SP. The study showed that IPT led to a reduction in maternal anemia, peripheral parasitemia, and placental parasitemia. These results were presented to stakeholders at the national consensus meeting and were instrumental in the MoH's decision in February 2005 to adopt an MIP policy that includes IPT with SP and ITNs focused through ANCs. During the consensus meeting, a strategic plan for implementing ACT and for IPT using SP was developed.

- The CDC provided technical support in the DRC to implement and analyze data for an SP efficacy study among pregnant women in an area of high SP resistance. Subsequently, a draft report on the study was completed and shared with the NMCP. Preliminary results suggest that SP failure rates in adult pregnant women with acute malaria are not as high as those in children under the age of five. Further analysis and the final report are pending. The role of SP in IPT in areas of high SP resistance (as defined by efficacy studies in children under the age of five) needs further evaluation.

- The CDC participated in the technical review of the Madagascar MIP policy document.

- WHO/AFRO and the CDC provided technical support for national consensus meetings in Rwanda to support the Rwanda NMCP on MIP policy adoption (November 2004).

WHO/AFRO also provided technical support to Burkina Faso (February 2005) for the adoption and integration of IPT in the national malaria control policy.

IR 2: Strengthen National-Level Capacity to Improve Access to and Use of Commodities and Services

Core-Funded Regional- and Subregional-Level Support

- The CDC incorporated international partners' comments in finalization the document *Rapid Assessment of the Problem of Malaria During Pregnancy*. Publication is expected by January 2006. This document will provide a manual and other tools to the community to conduct needed assessments to guide program goals.

- ACCESS developed the Standard-Based Management (SBM) tool for focused ANC and MIP through adaptation of multiple quality improvement tools. SBM is a practical management approach to improve the performance and quality of health services. It uses a system of performance standards as the basis for organizing health services functions and rewards compliance with standards through recognition mechanisms. Tools are available in both French and English.

- WHO/AFRO and WHO/Geneva disseminated the WHO/AFRO strategic framework for malaria prevention and control during pregnancy in the African region to WHO country offices and partners.

- WHO/AFRO developed clinical guidelines for the prevention and control of malaria during pregnancy, which is being revised before publication.

- WHO/AFRO developed a framework for collaboration between NMCP and reproductive health (RH) programs.

- WHO/AFRO and WHO/HQ, in collaboration with the RBM Department and GFATM's Technical Review Panel in July 2005, developed an information note on SP for IPT of malaria during pregnancy in areas of moderate-to-high SP resistance. This document is can be used as a decision-making tool in high-level SP resistance areas that pose challenges for NMCPs. It was recommended that countries with moderate to high levels of SP resistance that have already adopted and are implementing IPT with SP should continue using SP, but set up mechanisms to assess and monitor its efficacy and effectiveness for IPT in pregnancy. Countries with moderate-to-high levels of SP resistance, where no IPT policy has been adopted and implemented, should give high priority to the implementation of other measures for control of malaria in pregnancy, but delay implementation of IPT with SP until further evidence on efficacy are available.

- WHO/AFRO, in collaboration with the CDC, developed a French version of the Strategic Framework for Malaria Prevention and Control During Pregnancy in the African Region. The Portuguese version of this framework will soon be available.

Core-Funded Country-Level Support

- The CDC, along with ACCESS and WHO/AFRO, provided technical support for the adaptation of ANC/IPT-focused training materials for Rwandan health workers on how to implement IPT with SP.

- ACCESS's SBM model was adapted and adopted in Madagascar and Tanzania, where national performance standards were adjusted for focused ANC and MIP. In Madagascar, 3 national and 28 district level managers were trained using this approach. In Tanzania, 258 service providers, 44 midwifery tutors, and 29 managers were trained using this approach.

- ACCESS expanded the existing Safe Motherhood model to include key information for malaria. The malaria component of the model was developed through a review of all pertinent literature on key malaria interventions, soliciting feedback from experts in malaria and pregnancy, developing a mock-up and testing it through the use of secondary data, and producing a report on the development of the developed malaria component. This tool will allow program managers to make strategic decisions about allocation and targeting resources to yield the best results in reducing maternal and neonatal mortality and morbidity.

- ACCESS implemented a regional training workshop targeting faith-based providers and clinical experts from Kenya, Malawi, Tanzania, Uganda, and Zambia (MIPESA countries) to improve their knowledge around focused ANC and MIP. The regional workshop was implemented to augment the extensive work faith-based organizations have performed to deliver ANC services in these countries. In each country's private sector, faith-based providers contribute up to 40 percent of health care services for maternal and newborn health. All country teams have developed and are supporting action plans to help launch activity at the country level. Participants will play a key role in advocating for change and implementation of these services within their faith-based communities and with each country's MoH, which also participated in the training workshop.

- WHO/AFRO organized a multi-center study to evaluate the burden of malaria during pregnancy in low transmission areas. This study involved Madagascar, Mali, Mauritania, Niger, and Senegal. The main results show that the prevalence of malaria in the antenatal clinic ranged from 0.9 to 9.1 and of anemia from 4.5 to 71.0 percent. In the multivariate multi-site analysis, maternal parasitemia was associated with anemia (adjusted risk ratio [ARR] 1.5, 95 percent confidence interval [CI] 1.2-1.8) and moderate anemia (ARR 3.9, 1.9-8.0) during pregnancy. The prevalence of placental malaria and low-birth-weight ranged from 0 to 10.3 percent and from 7.7 to 21.7 percent, respectively.

- WHO/AFRO supported the implementation of the MIP strategic framework in Gabon by training of 22 national trainers.

- WHO/AFRO and WHO/HQ provided technical support to Cameroon to integrate MIP interventions into maternal and newborn health services in December 2005

IR 3: Strengthen National-Level Capacity to Improve Demand for Appropriate Prevention and Treatment of Malaria

Core-Funded Regional- and Subregional-Level Support

- The CDC completed the first draft of the document "Blantyre Integrated Malaria Initiative: Lessons Learned (BIMI)" and obtained comments from Malawian partners to be incorporated into the final document; publication is expected by January 2006. This report will provide information on a large USAID-supported program implementation project that will add to the literature on what did or did not work in Blantyre, Malawi.

- ACCESS disseminated copies of the "Malaria during Pregnancy Resource Package: Tools to Facilitate Policy Change and Implementation" to more than 15 countries in East, West, and Southern Africa. ACCESS is developing a standardized package of training materials for use in the West African countries. The resource package contains generic tools including training materials, job aids, press kits, and a communication strategy to assist countries in the prevention and control of malaria during pregnancy.

- The CDC prepared a draft document from the literature review of malaria in pregnancy in low transmission areas, which will identify the missing knowledge gaps around the type of policies needed in these areas. It will also provide information/advocacy material on the link between malaria and HIV and its programmatic implications for pregnant women. The final document is expected by December 2005.

Core-Funded Country-Level Support

- WHO/AFRO provided technical assistance to the Togo MoH and the NMCP to conduct a post-campaign survey of the integrated distribution of ITN and measles vaccinations. Results of the survey will feed into the Togo Malaria Strategic Plan 2006–2010.

- WHO/AFRO provided technical support to Niger for planning malaria prevention interventions surveys. Experience and lessons learned from activities in Togo were used to provide technical support to Niger in planning the post integrated distribution campaign survey. The survey team drafted the survey protocol, questionnaire, and budget estimate. WHO/AFRO will participate in the next survey in Niger in January 2006.

IR 4: Strengthen National-Level Linkages to Leverage Resources from Other RBM Partners

Core-Funded Regional- and Subregional-Level Support

- In June 2005 WHO/AFRO provided technical and financial support for the review of MIPESA's Round 5 GFATM proposal.

- WHO/AFRO provide technical support to key selected countries (Côte d'Ivoire, DRC, and Niger) to develop implementation plans for their GFATM Round 5 proposals.

Core-Funded Country-Level Support

- The CDC provided technical support to Mali on MIP and transmission reduction components areas to the National Malaria Control Program (NMCP) to assist them with writing their GFATM Round 5 application.

- WHO/AFRO provided technical and financial support to Kenya for development and implementation of a project entitled "Support health systems scaling up implementation of focused antenatal clinic services in Kirinyaga district." The Division of Reproductive Health and the Division of Malaria Control of MoH Kenya jointly collaborated on the project. Its objectives are to expand on implementation capacity of malaria control interventions by enhancing focused antenatal care (FANC) practices in at least 140 health facilities in the district, and to improve effectiveness and efficiency of implementation of malaria control interventions by involving the communities in promoting FANC in all six district divisions. The situation analysis indicates that 59.3 percent of health facilities provided the information data to the information's health systems. Malaria is the leading cause for seeking health care (33.1 percent) in outpatients. The numbers of facilities implementing FANC/MIP are 41 out of 152 health facilities (26.9 percent for the whole district). After the situation analysis, micro-planning and supervisory skills training was done. The rolling out of FANC to rural health facilities and communities by district and the training of trainers are planned for December 2005.

COUNTRY MISSION AND REGIONAL OFFICE (FIELD SUPPORT) SUMMARIES FROM COUNTRY ANNUAL REPORTS

Democratic Republic of the Congo

With support from USAID/DRC in FY 2004, MAC has provided technical support to the DRC in case management and malaria in pregnancy. MAC activities support the Mission targets for its malaria program, which are consistent with Abuja targets. Support has been focused on the following requested areas—

- Efficacy studies of combination therapies in Eastern DRC
- Technical support to the MoH and other partners to—
    - Update and adjust the national malaria treatment policy
    - Implement GFATM activities
- Complete and analyze data from the efficacy study of SP for treatment of uncomplicated malaria among pregnant women in Kisangani
- Review and update of standard clinical guidelines for the safe and appropriate use of blood transfusions in DRC
- Technical support to improve the drug distribution system at Soins de Santé Primaires en Milieu Rural SANRU (Programme de Sante Rurale) and Catholic Relief Services projects
- Technical assistance in drug management for implementation of ACTs

REDSO/ESA

The Regional Economic Development Services Office for East and Southern Africa (REDSO/ESA) provides technical assistance to USAID missions in the region, with a regional program to increase the technical capacity of African partners. The goals of REDSO link appropriately with the capacity of MAC to support treatment programs for malaria and prevent and control malaria during pregnancy. REDSO is working towards strengthening the malaria capacity and expertise with the Regional Center Quality of Health Care (RCQHC) and the Commonwealth Regional Health Community Secretariat.

In FY 2004, MAC provided technical support to 12 countries in the region, including support to non-presence countries, which include Burundi, Djibouti, Somalia, and Sudan, primarily through support to HANMAT's annual meeting. In support of REDSO and USAID's regional goals for FY04, MAC targeted technical support to—

- HANMAT development
- The RCQHC as Secretariat for the MIPESA Coalition
- Eight countries for quantification of antimalarial drug needs;
- The evaluation, development, and implementation of a system of ACT pharmacovigilance in Uganda
- Burundi to implement new treatment guidelines for malaria
- The Kenya MoH and REDSO/PHN Transport Corridor Initiative (TCI) partners in the design of a project of integrated malaria prevention and control interventions to augment the TCI program
- Document best practices and lessons learned in the MIPESA countries

Kenya

In FY 2004, with support from the USAID Mission, MAC supported several activities in Kenya in collaboration with the MoH. The planned activities for Kenya focused on developing appropriate policies for the treatment of malaria, strengthening national capacity to improve access to and use of commodities, and strengthening national capacity to improve demand for appropriate prevention and treatment of malaria.

MAC technical support was extended to the DOMC both on malaria case management and MIP in the following areas—

- To define the antimalarial drug requirements, inventory stock outs, the drug supply chain, and the new medicine policy
- To complete the folic acid/SP study and develop a protocol for a study to evaluate the efficacy and usefulness of RDTs for malaria control program support
- To develop new STGs and a transition plan for the new drug policy
- Provide continued support to the MoH, and specifically the Division of Malaria Control and the Division of Reproductive Health, to strengthen community awareness for RH with an emphasis on malaria in pregnancy, while at the same time strengthening existing links between communities and health facilities for better health outcomes; this effort included the development of a community RH package and support to community systems for dissemination of correct information to create informed demand

Madagascar

Malaria is the major cause of morbidity and mortality in Madagascar, and disproportionately affects children less than five years old and pregnant women. Three quarters of the population live in endemic areas (mainly along the East and West Coasts) and one quarter live in epidemic zones (mainly in the Central Highlands and Southern zones). MAC partners received funding from the USAID/Madagascar mission to provide technical support to the NMCP and the Division of Safe Motherhood in case management of malaria and in MIP. Efforts supported specific aspects of Madagascar's RBM partnership strategy, including—

- Implementing IPT with SP for pregnant women through the platform of FANC services in health centers and hospitals
- Ensuring that the quality health care services in FANC/IPT-SP are maintained through developing and using clinical performance standards in health centers
- Improving access to effective and timely treatment of malaria, particularly in children under the age of five, by developing and adopting a case management strategy
- Supporting the adoption and development of an implementation plan for ACT as the first-line treatment for case management of malaria

Following the IPT/SP policy adoption, the Ministry of Health and Family Planning (MoH/FP) and MAC partners worked to build the human resource capacity and the infrastructure needed to scale up IPT/SP nationally. To measure the effectiveness of the IPT/SP training and service delivery process, MAC partners evaluated the five model sites where providers were trained in 2003 using performance and quality standards developed with the MoH/FP. Results showed that all five model sites had ANC services but two sites did not have SP or ITNs. The evaluation led to a large RBM partners meeting where an action plan was created to rectify old problems, and prevent new ones from occurring in the ongoing scale up of IPT/SP. It will be critical for MAC partners, supported by USAID, to follow up on this action plan in FY 2005.

Madagascar has officially adopted amodiaquine/artesunate to replace chloroquine as the first-line treatment of choice for uncomplicated malaria. The draft policy has been developed and was expected to be officially adopted during this year and the case management activities of MAC partners were geared toward supporting this implementation. However, the process to finalize the new policy was slow and consequently affected the planned implementation of MAC case management activities.

Ghana

The Ghana Malaria Control efforts are based on RBM principles. Ghana committed itself in 1999 to the RBM initiative and developed a strategic framework to guide implementation. RBM efforts emphasize strengthening health services and making effective prevention and treatment strategies more available. In FY 2004, with support from the USAID Ghana mission, MAC has provided technical support to the country in case management and MIP. MAC activities support

the Mission targets for its malaria program. Support has been targeted to the following requested areas—

- Provide technical assistance to the Ghana Health Service to improve access to and promote rational use of antimalarial commodities and services, specifically—
    - To transition plans for implementation of the new treatment policy, including formation of working groups
    - To finalize the new antimalarial drug policy, and to help develop malaria case management guidelines
    - To develop the national communication strategy on the new medicines policy and the training manual and facilitator's guide for management of malaria at regional and district level
- To evaluate IPT implementation to improve access to quality IPT. Mission support was provided to WHO/AFRO and RPM Plus for Ghana's activities in FY 2004.

Rwanda

During FY 2004 (Oct. 2004–Sept. 2005), MAC, through USAID/Rwanda funding, aimed to reinforce the Rwandan health system for the prevention and control of malaria during pregnancy. Rwanda needed support for the adoption and implementation of MIP policy. Specifically, MAC support related to the following objectives—

- To provide technical support to the NMCP to develop a strategic plan for the control and prevention of MIP in Rwanda
- To provide technical assistance required for the implementation of IPT of malaria for pregnant women to be integrated in the package of antenatal and prevention of mother-to-child transmission services; ultimately, these activities support achievement of the Abuja Declaration and RBM objectives for the prevention, treatment, and control of malaria in Africa

During FY 2004, MAC partners provided technical assistance and support to the Rwanda NMCP for adoption and implementation of strategies to control and prevent malaria during pregnancy. This support was provided jointly by WHO/AFRO, JHPIEGO/ACCESS, and the CDC. MAC TA and consisted of—

- The organization of a national consensus meeting for the adoption of IPT as a strategy to prevent malaria during pregnancy
- The adaptation and adoption of JHPIEGO's *Malaria during Pregnancy Training Package,* including printing 1,600 copies of the training materials

- Strengthening the technical knowledge of 80 national- and regional-level trainers for focused ANC including prevention and control of malaria during pregnancy and detection of malaria epidemics in high-risk districts

- The participation of 800 health providers in trainings between July and September 2005 on national MIP control and prevention strategies. This activity was supported by *Twubakane* project (Intrahealth).

- The recruitment of a consultant, supported by WHO/AFRO, to serve as an IPT point person is ongoing; this person will be responsible for—

    - Ensuring the follow-up of IPT implementation and national scale-up

    - Supporting the Reproductive Health Division to introduce MIP activities into the antenatal healthcare service package

Following technical assistance from WHO/AFRO and ACCESS, IPT is being implemented in Rwanda's 11 health zones. SP is available in all health centers offering ANC services. An integrated supervision visit recently carried out in 106 health facilities by the MoH indicates that 93.4 percent (99/106) of health facilities provide SP to pregnant women. MAC partners will conduct follow-up visits during FY 2005 to monitor the implementation process.

West Africa Regional Program

In Year 3, with support from USAID/West Africa Regional Program (WARP), MAC worked towards achieving two specific WARP program results—

- Improved approaches to FP/RH, STI/HIV/AIDS, sexually transmitted infections, and child survival and infectious disease services disseminated region-wide

- Increased capacity of regional institutions and networks

MAC targeted technical support to RAOPAG—eight West African countries for quantification of antimalarial drug needs; three RAOPAG member countries to conduct IPT program evaluations; dissemination of best practices regionally; country efforts in accelerating the prevention and control of malaria during pregnancy; and WANMAT 1 and WANMAT 2 networks to improve the antimalarial drug surveillance and utilization.

ACCESS, CDC, and WHO/AFRO supported RAOPAG by providing financial and technical support to its Secretariat, which coordinates the network's activity. This has resulted in member countries revising their MIP country program action plans, moving from adoption of IPT/SP to implementation, and working with the Secretariat to shape the network's way forward. Thirteen of the 16 participating countries have adopted IPT policy. Of those countries who have adopted policy; six have implemented nationwide action plans, four have begun limited implementation, and three have not started implementation. MAC/RPM Plus also organized a regional Training-of-Trainers Course on antimalarial quantification, resulting in the identification of country

challenges and specific technical assistance that will be provided by RPM Plus in collaboration with other regional partners. MAC/WHO/AFRO supported workshops for WANMAT 1 and WANMAT 2 leading to updated knowledge on monitoring the effectiveness of antimalarial drugs.

CHALLENGES

Due to the limitations of hiring policies, the CDC was able to find an employee for the MAC Harare position only through its cooperative agreement with WHO/Geneva. The Malaria Advisor in Harare is working to support the RBM M&E work as well as the CDC/MAC work that supports RBM. The ability to continue to support the Malaria Advisor in DRC has been limited due to changes in funding. An ongoing challenge for the CDC is to be responsive in a timely manner to technical support requests that require international travel, as the CDC travel procedures require a minimum of 45 days lead time for international travel. The development and implementation of the mission/country work plans and activities continue to be a challenge, and at times problematic, as each mission has its own expectations and way of conducting business. The time and resources expended in the development of individual work plans may detract from the implementation of activities to achieve the goals.

RPM Plus has encountered challenges in providing technical assistance to several countries because of delays in official ACT policy adoption and ACT procurement. Another challenge that all partners experience involves delays and challenges associated with coordinating and planning joint activities. Timely program implementation is more difficult in those countries where MAC partners do not have local staff in place. Specifically related to RPM Plus quantification activities, a major challenge involves the reality that data management and information systems in many countries are inadequate. It would be prudent for MAC to begin to support countries to establish interventions to overcome the barriers to good sustainable country level quantification processes for antimalarials.

With the advent of the President's Malaria Initiative (PMI), ACCESS sees a large, high-priority malaria initiative that will in some way impact MAC. It will be important for MAC to consider how to ensure appropriate coordination between MAC and PMI, and how MAC can complement and enhance the PMI. The MAC partnership should address this in the near future.

Some of the challenges that WHO/AFRO faces in implementing MAC activities include inadequate resources for follow up of implementation of treatment with ACTs and IPT and limited finances to make the regional networks (e.g., MIPESA, RAOPAG, WANMAT 1 and 2) more operational and enable their full contribution. In response to antimalarial drugs resistance, the introduction of ACTs, and the scaling up of IPT, WHO/AFRO should continue to support national malaria programs, including the strengthening of sub regional networks for monitoring antimalarial efficacy and MIP. To ensure the sustainability of the subregional networks, WHO/AFRO will continue to focus the financial support to their essential functions (added value of the technical assistance of the Secretariat to countries, effective communication of results, and implication on policy and implementation to decision-makers) and to a minimal structure. WHO/AFRO had already conducted advocacy for resource mobilization with the subregional network through the Gates Malaria Partnership and Malaria Consortium. Accordingly, a drug policy adviser has been hired to assist WANMAT 2.